



Alpha Magnetic Spectrometer
NASA / DOE

Alpha Magnetic Spectrometer Weekly Reports

July 16, 2004



National Aeronautics and
Space Administration

Upcoming Events:

- AMS General TIM - July 19 - 23, 2004 - CERN Geneva, Switzerland
- Thermal Control System (TCS) Delta Critical Design Review (Δ CDR) - Postponed (Schedule under review) - Location TBD
- AMS-02 Phase II Safety Review - Fall 2004 (Schedule under review) - JSC
- STA Vacuum Case Delivery (on dock at STADCO) - October 22, 2004
- Flight Vacuum Case Delivery (on dock at STADCO) - November 3, 2004
- AMS General TIM - October 18 - 22, 2004 – JSC
- AMS General TIM - January 10 - 14, 2005 – KSC
- AMS-02 Avionics Functional Interface Test (FIT) - January 2005

Upcoming Tests:

- O-Ring Test Fixture (OTF) Vacuum Test - On going - J13
- STA Acoustic Test - Date TBD - ESTEC - Noordwijk, Netherlands (Schedule under review)
- STA Sine Sweep Test - Date TBD - INFN - Terni, Italy (Schedule under review)
- Full Assembly Modal & Static Tests - Date TBD - IABG - Munich, Germany
- Interface Plate Static Test - Date TBD - Location TBD
- Lower Joint Static Test - Date TBD - Location TBD

Status:

- Lockheed Martin Space Operations (LMSO) Alpha Magnetic Spectrometer (AMS) personnel conducted and supported the AMS Project Re-baselining Review Outbrief on July 15. The outbrief was the culmination of a formal review of all AMS produced documents conducted in support of the transition of the AMS Project from the Mission and Project Management Office (SM) to the Engineering Directorate (EA). LMSO team members prepared and presented 13 presentations on



Alpha Magnetic Spectrometer
NASA / DOE

Alpha Magnetic Spectrometer Weekly Reports

July 16, 2004



National Aeronautics and
Space Administration

the current status of the AMS Project, AMS Quality Systems, Configuration Management, the AMS Website, an Overview of the Review Item Discrepancies (RIDs) received during the document review period and the resulting Dispositions, Status of Critical Design Review RIDs, Risk Management, Phase II Safety Review and Issues, and the AMS Road to CoFR (Certificate of Flight Readiness). The presentations are available on the EA AMS Project Home Page (http://www4.jsc.nasa.gov/eaprojects/ea-projects/flightgfe/ams_02/html/outbrief071504.htm).

- In support of the Project Re-baselining Review, LMSO personnel continued to update AMS documents that received RIDs during the review period. The affected documents include the Project Technical Requirements Specification (PTRS) for the Payload Integration Hardware (PIH), the Experiment/Vacuum Case Interface Control Document (ICD), the Experiment/Payload Integration Hardware (PIH) ICD, the Program Management Plan (PMP), and the Configuration Management Plan. A total of 84 RIDs were received: 68 were "Closed", 13 are "Open" pending completion of assigned actions, and 3 remain "Open" and were discussed at the Re-baselining Review Outbrief on July 15.
- STADCO informed LMSO that the Vacuum Case Structural Test Article (STA) delivery schedule has slipped 1 week due to machine problems. The schedule slip is a concern and currently under discussion. This is the fifth time that the schedule has slipped since the contract was awarded last September. A meeting is being planned to discuss STADCO support issues LMSO's concern regarding the continuing schedule slips.
- All Vacuum Case tasks at STADCO are currently being worked per the schedule with an STA delivery date of October 22, 2004.
- LMSO AMS personnel met with representatives of the Crew and Thermal Systems Division (CTSD) to discuss the multi-layer insulation (MLI) for the Vacuum Case and the AMS-02 Payload that NASA/JSC is to provide. General requirements and configurations for the MLI were discussed.
- The Upper USS-02 Assembly drawing was updated and submitted for design review and checking. The STA Vacuum Case Assembly drawing is in work. Work is continuing on incorporating design changes and drawing redlines into the Vacuum Case Test Fixture (VCTF) drawings. Additional drawings for the VCTF are being created.
- Evaluation of the Vacuum Case O-rings is continuing. The data generated from the rate of pressure rise data for the O-Ring Test Fixture (OTF) was incorporated the data with previous data sets. The rate of change was approximately the same as previous tests.



Alpha Magnetic Spectrometer
NASA / DOE

Alpha Magnetic Spectrometer Weekly Reports

July 16, 2004



National Aeronautics and
Space Administration

- Vacuum Case Milestones
 - STA Support Rings Complete - July 2004
 - Weld Development - March 2004 - July 2004
 - Flight Support Rings Complete - July 2004
 - First Article Weld Complete - July 2004
 - STA Conical Flanges Complete - July 2004
 - Shipping Fixture Complete - August 2004
 - STA Line Drill Operations Complete - August 2004
 - Flight Conical Flanges Complete - August 2004
 - STA Match Drill Procedure Complete - August 2004
 - STA Weld Complete (for proof test @ STADCO) - August 2004